

# COMMON CORE STATE STANDARDS

## For

# MATHEMATICS

**Standards for Mathematical Practice** are present throughout the K-12 document and describe varieties of expertise that mathematics educators of all levels should seek to develop in their students. Standards for Mathematical Practice describe ways in which developing student practitioners of the discipline of mathematics increasingly ought to engage with the subject matter as they grow in mathematical maturity and expertise throughout the elementary, middle and high school years.

### **Begin Implementation in 2010-11**

The Standards for Mathematical Practice are based on the NCTM Process Standards and the strands of mathematical proficiency specified in the National Research Council's report *Adding it Up*. (CCSSM Pages 6-8)

#### ◆ **K-12 Standards for Mathematical Practice**

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

**Standards for Mathematical Content** include both *concepts* (what students need to understand) and *skills* (what students need to know and be able to do). These Standards aim for clarity and specificity. K-8 grade-by-grade standards are organized by domain and 9-12 high school band standards are organized by conceptual categories.

#### ◆ **K-5 Domains**

- CC = Counting and Cardinality
- OA = Operations and Algebraic Thinking
- NBT = Number Operations in Base Ten
- NF = Number and Operations – Fractions
- MD = Measurement and Data
- G = Geometry

#### ◆ **6-8 Domains**

- RP = Ratios and Proportional Relationships
- NS = The Number system
- EE = Expressions and Equations
- F = Functions
- G = Geometry
- SP = Statistics and Probability

#### ◆ **9-12 Conceptual Categories**

- N = Number and Quantity
- A = Algebra
- F = Functions
- M = Modeling (Modeling standards appear throughout the high school standards rather than in one set).
- G = Geometry
- SP = Statistics and Probability